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| 09/992,652 | 11/16/2001 | David J. Green | 0325.00488 | 2156 |
| 21363 | 7590 | 09/22/2004 | EXAMINER | |
| CHRISTOPHER P. MAIORANA, P.C. 24840 HARPER ST. CLAIR SHORES, MI 48080 | | | EHICHIOYA, FRED I | |
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| | | | 2172 | |
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Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/992,652

Applicant(s)

GREEN ET AL.

Examiner

Fred I. Ehichioya

Art Unit

2172

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on (Phone communication) 09/01/2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1 - 10, and 21 - 33 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1 - 10, 21, 22, 23 and 29 - 33 is/are rejected.
- 7) ☒ Claim(s) 24 - 28 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- ☒ Notice of References Cited (PTO-892)
- ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____
- ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- ☐ Notice of Informal Patent Application (PTO-152)
- ☐ Other: _____

DETAILED ACTION

Response to Arguments

1. This communication is responsive to Applicant's telephonic communication on September 1, 2004.
2. Applicants' arguments, with respect to claims 1 – 10, and 21 – 33 filed February 13, 2004 have been fully considered and are persuasive. Therefore, the Final rejection of last Office Action has been withdrawn. However, upon further consideration, a new ground(s) of rejection is made in view of claims 1 – 10, and 21 – 33.

Claim Rejections - 35 USC § 112

3. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

Claim 23, 24, 27 and 29, are rejected under 35 U.S.C. 112, first paragraph, because the best mode contemplated by the inventor has not been disclosed. Evidence of concealment of the best mode is based upon dependent claims that depend on claims that were not previously disclosed. This creates ambiguity to understanding the scope and purpose of the claimed invention, and therefore there is evidence of concealment to one of ordinary skill in the art.

4. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claim 23 recites the limitations of claim 33, Claim 24 recites the limitations of claim 32, Claim 27 recites the limitations of claim 31 and Claim 29 recites the limitations of claim 33. There is insufficient antecedent basis for these claim limitations.

Claim Objections

5. Claims 24, 25, 26, 27 and 28 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Claim Rejections - 35 USC § 103

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

7. Claims 1, 2, 22 and 30 are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent 5,635,855 issued to Howard Y. M. Tang in view of U.S. Patent 6,138,229 issued to Kayhan Kucukcakar et al (hereinafter "Kucukcakar").

Regarding claims 1 and 30, Tang teaches a method of generating a file suitable for programming a programmable logic device, the method comprising the steps of:

A) generating a programming item from a plurality of parameters that define a program for said programmable logic device (see column 1, line 62 through column 2, line 30 and column 8, lines 55 – 58);

(B) compressing said programming item to present a compressed item (see column 8, lines 25 – 28);

(C) storing said programming item in a programming field of said file in response to generating (see column 5, lines 13 – 27); and

(D) storing said compressed item in a non-programming field of said file in response to compressing (see column 8, lines 29 - 38).

Tang does not explicitly teach programming field and non-programmable field.

Kucukcakar teaches programming field (see column 5, lines 50 – 53) and non-programmable field (see column 3, lines 25 – 47).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify teaching of Kucukcakar with the teaching of Tang wherein the stored programmable and non-programmable datapath receive data from databus, provide functional operations on the data, and transfer data back to the data bus wherein the operations such as arithmetic operations, data increments/decrements, data shifting, and logical comparisons take place.

Regarding claim 2, Kucukcakar teaches the step of storing at least one of said parameters in a second non-programming field of said file (see Fig.2 and column 5, line 67 thru column 6, line 3).

Regarding claim 22, Tang teaches said file is compatible with a Joint Electron Device Engineering Council JESD3-C standard (see column 8, lines 25 – 62).

8. Claims 3, 4, 5, 6, 7 and 21 are rejected under 35 U.S.C. 103(a) as being unpatentable over Tang in view of Kucukcakar and further in view of U.S. Patent 6,121,903 issued to Nir Kalkstein (hereinafter "Kalkstein").

Regarding claim 3, Tang or Kucukcakar does not explicitly teach the step of generating a dictionary for compressing prior to compressing said programming item.

Kalkstein teaches the step of generating a dictionary for compressing prior to compressing said programming item (see column 11, lines 47 - 50).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine teaching of Kalkstein with the teaching of Tang and Kucukcakar wherein the dictionary contains data items that are building blocks for the input texts. The motivation is that the dictionary contains a series of mappings between the original data and the compressed representations of the actual data.

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Regarding claim 4, Kalkstein teaches wherein said dictionary is generated independently of said compressing step (see column 2, lines 27 - 29).

Regarding claim 5, Kalkstein teaches said compressing is a Huffman encoding and said dictionary is a Huffman tree (see column 12, lines 6 - 27).

Regarding claim 6, Kalkstein teaches the step of encoding said compressed item from a binary representation to a symbol representation in response to compressing (see column 2, lines 28 - 32).

Regarding claim 7, Kalkstein teaches the step of mapping said symbol representation to a character representation in response to encoding (see column 2, lines 28 - 32).

Regarding claim 21, Kalkstein teaches the step of adding plurality of delimiters around said compressed item in said non-programmable field (see column 11, lines 47 - 65).

9. Claims 8, 9, 10, 23 and 29 are rejected under 35 U.S.C. 103(a) as being unpatentable over Tang in view of Kucukcakar and further in view of U.S. Patent 5,090,015 issued to Ezzat A. Dabbish et al (hereafter "Dabbish").

Regarding claim 8, Kucukcakar teaches non-programming field (see Fig. 2 step 46). Tang or Kucukcakar does not explicitly teach teaches generating an error detection item; and storing said error detection item in a second non-programming field of said file.

Dabbish teaches generating an error detection item (see column 1, lines 56 - 57); and

storing said error detection item in a second non-programming field of said file (see column 2, lines 29 - 39).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine teaching of Dabbish with the teaching of Tang and Kucukcakar wherein error detection code is generated. The motivation is that error detection code verify each row is programmed is accurately stored.

Regarding claim 9, Dabbish teaches extracting error detection item from file (see column 1, lines 49 – 57).

Regarding claim 10, Dabbish teaches said steps (A) through (D) are stored in a storage medium as a computer program that is readable and executable by a computer to generate said file (see column 3, lines 60 - 63).

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Regarding claim 23, Kucukcakar teaches the step of extracting said programming item from said programmable field of said file (see column 2, lines 34 – 37).

Regarding claim 29, Dabbish teaches the step of repairing said error detection item in response to said backup programming item failing said validating step (see column 2, lines 45 – 59).

10. Claims 31, 32 and 33 are rejected under 35 U.S.C. 103(a) as being unpatentable over Tang in view of Kucukcakar, Dabbish and further in view of Kalkstein.

Regarding claim 31, Tang, Kucukcakar or Dabbish does not explicitly teach compressed item.

Kalkstein teaches extracting said compressed item from said file (see column 4, lines 35 – 41).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine teaching of Kalkstein with the teaching of Tang, Kucukcakar and Dabbish wherein data compression technique reduces the size of data files stored in the storage medium. This enables the operating system to store more files on a given disk drive.

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Regarding claim 32, Kalkstein teaches decompressing said compressed item to present a backup programming item (see column 6, lines 62 – 67).

Regarding claim 33, Dabbish teaches validating said backup programming item with error detection item (see column 2, lines 58 – 59).

Conclusion

11. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Fred I. Ehichioya whose telephone number is 703-305-8039. The examiner can normally be reached on M - F 8:00 AM to 4:30 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, John E. Breene can be reached on 703-305-9790. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Fred I. Ehichioya
Examiner
Art Unit 2172
September 15, 2004

Accepted by K. Ehichioya
W. [Signature]